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I.

ON THE TREATMENT OF HOOPING COUGH.

By Dr. A. T. Thomson, of the London University Dispensray.

In the treatment of hooping cough, Cullen's method of dividing the disease into three distinct classes is highly judicious ; each stage being marked with its characteristic features, which distinguish it from the others, and each requiring a distinct plan of treatment.

In the *first stage*, the treatment must be regulated by the type of the fever. Thus, although bleeding is proper when the excitement is considerable, or when the pulse is hard, small, and quick, and the breathing oppressed, indicating congestion, yet, as it is an acknowledged maxim that the symptoms of spasmodic affections are rather increased than diminished by the use of the lancet, it would be highly injudicious to bleed, unless such symptoms as have been just described clearly point out the necessity of abstracting a portion of the circulating mass. In my own practice, I have seldom had occasion to employ bloodletting; but in some of the cases in which it has been requisite, the necessity was not limited to the commencement of the disease ; and in one distressing case for which I was consulted some weeks since, bleeding, although it did not save the patient, yet greatly soothed his sufferings, and rendered the closing hours of life comparatively comfortable.

Nothing is so likely to produce that state which requires the use of the lancet in hooping cough, as the imprudent exposure of the patient to sudden alternations of temperature ; and therefore, when we consider also how much milder the disease is in warm climates, the propriety of confining those laboring under it to one or two apartments, kept at a medium temperature, must be obvious. The custom of frequently changing the air was founded upon an erroneous view of the disease, and is now, I believe, rarely recommended until the disease has nearly run its course, when the change, operating as a tonic power, rapidly annihilates the cough, which sometimes continues, from the force of habit, in persons of weakened and irritable constitutions.

The early employment and repetition of emetics in hooping cough, is a judicious remnant of the old humeral practice in this stage of the disease. In infants, emetics free the stomach not only of the mucus from the trachea and bronchia, which is brought up in coughing and immediately swallowed by very young patients, but also, in those more advanced in years, they dislodge from it that preter-

natural secretion of mucus, which has been already mentioned as occurring in this organ; for it is a well-known fact, that, through the connexion of the stomach and the larynx by means of the par vagum, nauseating medicines, rousing the stomach to discharge its contents by vomiting, loosen the adhesion of viscid mucus to the lining membrane of the larynx and trachea. Emetics also determine powerfully to the surface; and when the paroxysms of coughing assume an intermittent character, which is not unfrequently the case, the administration of an emetic at the moment when a paroxysm is expected, breaks the periodic habit, and facilitates the cure of the disease, on the same principle as in ague. I have, nevertheless, seen much mischief result from the frequent repetition of emetics in those of delicate and irritable habits; and when the stomach and the chest consent, if the expression be allowable, and the paroxysms are terminated by vomiting, the exhibition of emetics is not only unnecessary, but highly detrimental.

Practitioners are divided in opinion with respect to the kind of emetic which should be employed. Some imagine that by the employment of squills and other nauseating expectorants, as emetics, a double indication is effected; but as the operation of all expectorants is through the stomach, on which they must produce nausea before the air-tubes can be relieved by them, those emetic substances are the best which are most easily limited in their effects; and consequently ipecacuanha, combined with small doses of tartar emetic, is preferable to every other emetic.

The promotion of expectoration is undoubtedly useful in this stage of hooping cough; but, in very young subjects, it can prove beneficial only when accompanied with vomiting; and, as emetics are not always advisable, other methods have been sought for, to promote this effect. Among these, I have seen the inhalation of both highly-diluted nitrous acid gas, and of the vapor of hot tar, tried with apparent benefit. The former was first tried by Mr. Patterson, surgeon to the Ferton Hospital, and is noticed in Dr. Carmichael Smyth's Report upon Nitrous Acid Gas; but the cases were too few to form a decided opinion of its powers; and in my own practice, I have seen it used once only: in that instance the patient rapidly improved. Mr. Patterson employed it under the supposition that it might neutralize the virus in the air-passages of the lungs, and thence render it inert, in the same manner in which it destroys contagious matter floating in the atmosphere: I used it with the hope of exciting the lungs to discharge the mucus with which, in the case referred to, they were completely choked up. It certainly produced the desired effect; and after the employment of it for three successive days, the most striking improvement took place in the patient, who previously appeared to be sinking into his grave. I have had no other occasion for using the nitrous acid gas in hooping cough, but I feel much disposed to recommend it in similar cases. I have employed more frequently the inhalation of the vapor of tar, in less urgent cases, and can bear testimony to its effects in promoting the expulsion of the glairy mucus from the trachea. I may here mention that I have lately found it equally useful in a very distressing case of asthma. The simplest

method of extracting tar vapor is to put the tar in a pipkin capable of holding triple the quantity intended to be used, and placing this in a vessel containing sand sufficiently heated to keep the tar in a state of gentle ebullition: it promotes expectoration, which is followed by sleep, from which the patient awakes greatly refreshed.

In this stage of hooping cough, when the excretions are not duly effected, it is necessary to resort to purgatives; but I must agree with Dr. Cullen in condemning their frequent employment.

In the second stage of hooping cough, which may be regarded as commenced when the febrile symptoms have abated, and the cough returns in regular paroxysms, such as in the cases now under treatment in this Dispensary, the symptoms are to be combated by those medicines which, having sedative powers, allay the morbid irritability of the nervous system, and, consequently, act as antispasmodics. This class of remedies is extremely extensive; and the greater number of the articles which it contains have been, at one period or another, employed in hooping cough; and although each has had its advocates for a certain time, yet many of them, either from the influence of fashion, which has a sway even over medical opinions, or from a conviction of their inutility, have fallen into disuse. The list is still sufficiently extensive; but I will notice those only of which I am able to speak from my own experience and observation.

The first of the tribe of narcotics, opium, has been extensively employed, but has generally been supposed to prove hurtful, by checking expectoration: this is true when opium is given alone, yet, in combination with nitrate of potassa and ipecacuanha, or tartar emetic, I have found it answer every indication. In some habits, its effects upon the functions of the brain stand, certainly, in the way of its exhibition; but in these instances I have found the acetate of morphia prove beneficial; and were this remedy less expensive, it would, with the exception of prussic acid, render nugatory the employment of every other narcotic. I have given it, dissolved in the bitter almond emulsion, in doses of one-eighth of a grain, once in six or eight hours, to children five years old. I have not found the same beneficial results from the use of the lactucarium, or of hyosciamus, both of which have been highly extolled as sedatives in hooping cough.

Belladonna has been very extensively employed on the continent, as an antispasmodic, in hooping cough; and we might, *á priori*, augur well of its power from its general effects upon the nervous system. In Germany, the root of the plant has been greatly extolled. It has been given, in doses of a quarter of a grain gradually increased to a grain, to children under one year of age; in doses of half a grain, at first, to children between the ages of two and four years; and in three quarters of a grain, to those above this period of life. I have had no experience in the use of the root; but my opportunities of witnessing the effects of belladonna have been numerous and satisfactory, and the cases now under treatment here will enable you to verify the opinions I have to offer to you concerning it. I have generally given the medicine, at first, in doses of the tenth of a grain, to children of from two to five years of age; and, to insure the accuracy of the

dose, have prescribed in the form of pills made up with crumb of bread, which, as they are small, are readily swallowed in a teaspoonful of pap or gruel. In combination with the extract of belladonna, I have usually prescribed ten or twelve grains of the subcarbonate of potassa or of soda, and half a grain of powder of ipecacuanha, to be taken in an ounce of the bitter almond emulsion, between each dose of the pills. The result of this treatment has been the diminution of the cough, both as to violence and the frequency of its recurrence; and except in a few instances, which I am inclined to refer to idiosyncracy, the plan does not appear to have been productive of the smallest inconvenience. When the dose has been too suddenly augmented, or when too large a dose has been given at first, it dilates the pupil, produces a paralysis of the retina, and a consequent temporary blindness, which continues two or three days after the medicine has been discontinued, but seldom occasions any other unpleasant effect. In one case, however, in which a boy, five years old, had taken the dose intended for his brother of nearly double the age, the head was singularly affected: a state of delirium, not unlike that attendant on mania, supervened; and although the attention could be easily roused, yet the mind immediately relapsed into its morbid state, and continued so for two days and nights, during which there was uninterrupted watchfulness. I generally continue the use of the belladonna, gradually augmenting the dose, until a scarlet eruption cover the skin, when I stop until this disappears. Whilst this eruption is out, the cough ceases, and if it do not soon subside, the habit is so much overcome as to prevent the recurrence of it with as much severity as before.

Digitalis has been given as a sedative in this stage of hooping cough, but with various results. The unsuccessful instances, however, in my opinion, have arisen from the exhibition of the remedy under improper circumstances; nor do I think that the manner in which this powerful remedy operates on the animal economy is generally understood. Digitalis has been given to keep down the arterial action in hooping cough, as well as in mania,—an effect which I am satisfied it produces in neither disease, unless it be given in large and nauseating doses, and unless the arterial excitement be previously lowered. When this has been effected, when the pulse is feeble, and the habit in a state approaching to that of debility or general relaxation, digitalis is a most certain and powerful sedative, calming nervous irritation, allaying spasmodic action, and inducing sleep. The striking effects of this article of the materia medica in mania, first induced me to employ it in hooping cough, and in delicate habits I have found it answer my expectations. The form of the remedy which I have usually employed is the tincture, which I give, according to circumstances, in small doses at first, gradually increased to an extent much beyond what is generally imagined can be safely prescribed. Thus, in hooping cough, I have carried the remedy to the extent of forty drops, three times a day, to a boy eight years of age; and in adults, laboring under mania, I have given it, with the best effects, in doses of 110 drops, once in eight hours, for ten days successively.

Alkalies and the prussic acid act,

nearly in the same manner, on the coat of the stomach, and through that organ on the general system. When taken into the stomach, their first effect is on the nerves of the viscus, the irritability of which they lessen in proportion to the extent of the dose, and communicate this effect by sympathy to the larynx. Prussic acid, in particular, is unquestionably the most powerful antispasmodic which can be employed in hooping cough; and it has the advantage of being equally useful in every stage of the disease,—the due apportionment of the dose and its combinations enabling it to answer the indications to be attended to in every stage of the complaint. Thus, in the first or febrile state, the prussic acid, given in medium doses of one or two minims to children of ten or twelve years of age, in combination with ipecacuanha and nitrate of potassa, moderates the fever; in the second or spasmodic stage, in larger doses, it allays the violence of the cough; and in the last stage, in small doses of a single minim, combined with infusions of bark, it aids the tonic power of the bark, by allaying the irritability of the stomach, and thereby enabling the gastric fluid to be secreted more slowly, consequently in a more natural state, and better fitted for the purposes of digestion. In one of the cases now under treatment, the dose is one minim only, owing to the great delicacy of frame of the child; but in the others, the dose is two minims, repeated every fourth hour.

Musk, conium, the sedum palustre, and acetate of lead, have been used by different physicians, and have been extolled; but I have had no opportunity of forming an opinion as to the efficacy of any of them, except conium, which has rather disappointed my expectations in hooping cough. I am well aware, however, that in the form of extract, much depends on the preparation of the remedy; and even in the form of powder, the manner in which the leaves are dried, and the powder is preserved, will greatly alter its influence as an antispasmodic.

Besides the employment of sedatives in this stage of the complaint, stimulant remedies are also prescribed, with the view of subduing the propensity to spasmodic action in the trachea, by exciting, as Dr. Good remarks, "a general or remote local revulsion." But, unless as external applications, I have had no experience of the value of this class of remedies. The internal stimulants which have been employed in hooping cough are cantharides, ammonia, ether, camphor, myrrh, the herb paris, and the rhus *vernix*. The external stimulants are camphor, garlic, ammonia, oil of amber, turpentine, tartar emetic, and tincture of cantharides, all of which I have seen beneficial, when employed in combination with oil or soap liniment, in the form of embrocations; probably producing their good effects by stimulating the dorsal and cervical nerves, which are those chiefly concerned in the function of respiration.

That period, in the progress of hooping cough, in which the spasmodic state has somewhat abated, and the cough is kept up rather by habit than by the continuance of the operation of that virus which originally produced it, is regarded as its third stage. The frame of the body, and its powers exhausted by the previous diseased action, is morbidly susceptible of every impression which can keep up the spasmodic habit. In this stage,

therefore, tonics are judiciously prescribed; and the preference is given to those which produce their effects most quickly, and are the least disagreeable to the palate. Cinchona has been employed for this purpose since the days of Sir John Floyer, who lived in the seventeenth century; it is now superseded by the sulphate of quinia, which can be given to children in the form of pills with as much facility as the extract of belladonna. I have employed the oxide and the sulphate of zinc, nitrate of silver, iron in various forms, and the arsenical solution, as tonics in this stage of hooping cough, and feel some difficulty in determining to which I should give the preference. Perhaps the best of all tonics, at this period of the disease, is change of air; and this, in conjunction with ass's milk and the mucilage of the lichen islandicus, I have seen restore children worn down to skeletons, and rapidly becoming tabial, when no other human means appeared likely to save the little sufferers.

The diet in hooping cough should be of a vegetable and farinaceous kind, until the second stage of the complaint be over; after which, light animal food may be allowed.

I have only further to notice that the hooping cough is said to be cut short, in its progress, by vaccinations on the third week after the commencement of the hoop. This method of treatment was first suggested in Germany, and its efficacy is said to have been lately confirmed in America. Allowing that the observations of this influence of vaccination be correct, the remedy must always be of very limited utility, as it is not likely that vaccination should be delayed, with the risk of smallpox being taken in the interval, in order to keep it in reserve as a remedy in hooping cough.

II.

EXERCISE OF INFANTS.

A PROPER attention to exercise is not less important during the early periods of infancy, than in after life. Upon it depends, in no trifling degree, the health of the little being, as well as the proper development and freedom from deformity of every part of its body. An infant is, however, from the very state of its organization, unfitted to sustain any very active exercise. Its bones and muscles are as yet incapable of bearing the weight of the body, and of course all the exercise it can enjoy is that which is communicated to it by its nurse or attendant. The earliest species of exercise to which children are submitted, is that of rocking in a cradle. Without objecting to the motion thus communicated, when it is gentle and not too long continued, or too frequently repeated, we must be permitted to say that under opposite circumstances it is more or less injurious. It is especially so when resorted to immediately after the child is taken from the breast, or for the purpose of composing it to sleep when restless or fretful. The best exercise for a young infant is obtained by allowing it to amuse itself upon the nurse's lap, and by carrying it frequently about in the arms. When sufficiently old to be attracted by surrounding objects, taking it frequently into the open air, especially in the country, during the milder seasons of the year, has a highly beneficial influence. The freshness, beauty and variety of the scenes of nature, are highly

attractive even at a very early period of life, and the impressions resulting from them are always of a salutary kind. In carrying an infant, some important precautions are necessary. The back bone is at this period almost entirely composed of a soft yielding substance, that is incapable of supporting the head and other parts which rest upon it, in the erect position of the body. To prevent deformity, therefore, a young child should not be held in a sitting posture upon the arm of the nurse; it ought always to be carried in the arms in a half-lying position, so that the head, and every part which bears upon the spine, receive a proper support. In delicate infants, a permanent bending of the body to one or other side, has frequently been caused by their being carried for too long a time in the nurse's arms without changing the position in which they are held. To obviate this, the child should be carried, by turns, on both arms.

It is very common to toss a young child up and down, in the arms, held at full length from the body. The action thus communicated is of too violent a kind to be borne with impunity in the early periods of infancy, to say nothing of the serious accidents which may result from it, even when the utmost care is observed. As soon as a child is able to sit alone, placing it upon a soft carpet or cushion spread upon the floor, and allowing it to amuse itself with its toys, is far preferable to constantly nursing it in the arms, or allowing it to be rocked for hours in a cradle.

It is only towards the end of the ninth month, and frequently even later, that it is proper to learn a child the use of its feet. As a general rule, no particular attempt should be made to induce it to walk at an early period; the bones not having acquired a sufficient degree of solidity to support the body, every effort to place the child upon its feet is calculated to produce considerable and permanent deformity, and so far from promoting, to retard the growth of the body. In learning a child to walk, it should be left entirely to its own efforts; all artificial support is injurious: as generally applied, this support has a tendency to produce an unnatural elevation of the shoulders, while the infant, depending upon it almost alone for the support of its body, is accustomed to bend too much forward, or to one side. By this may be laid the foundation of a permanent deformity, or at least of an ungraceful gait, which it is often impossible, in after life, to correct. All that need be done to induce a child to walk at the proper period, is to place it upon a carpeted floor, and to present to it at a little distance some attractive object: the desire of obtaining this will overcome the fear of falling, which is experienced in first attempting to walk alone; and in a very short period the tottering and uncertain step which is then exhibited, will give way to a firm, confident, and upright carriage. Even after it has learned to walk, a child should not be urged to use its feet for too long a period at a time. The powerful and novel action into which the several muscles are thrown, produces very quickly fatigue, while it is to be recollected that the bones are still easily bent, when they are called upon to sustain the weight of the body, and the force of the muscles, for any length of time.—*Journ. of Health.*

III.

ACCOUNT OF THE EPIDEMIC SCARLATINA ANGINOSA.

By Dr. CALLAGHAN, of Pittsburgh, Penn.

SCARLATINA ANGINOSA appeared in this city in the month of May, 1830, and continued to January, 1831, extending its ravages throughout the entire mass of the population. Few families have escaped its visitation, and many have to lament the loss of one or more of their juvenile members. The crowded and ill-ventilated sections of the city suffered most—hence the poor, as in most other epidemics, have been the principal sufferers. The disease was for the most part confined to children from one to ten years of age. It commenced with the setting in of the warm weather, about the middle of May, the thermometer ranging from 50 to 72 deg., with southerly winds and frequent showers. The first characteristic symptoms of the disease, were general lassitude, want of appetite, hot skin, furred tongue, pain in the head, pain in the small of the back, nausea, lips dry, teeth encrusted, swelling of the tonsils, hoarseness, slight cough, difficulty of deglutition ; about the second or third day, the cutis covered with a scarlet-colored eruption ; restlessness ; thirst ; pulse varying from 100 to 140, sometimes fluttering and irregular ; eyes suffused ; rigidity of the muscles of the lower jaw ; indistinct articulation ; drink returning by the nose ; in some cases, ulceration of the tonsils ; delirium; inability to bear the light; swelling of the extremities, followed by pneumonia, but more frequently coma ; dilated or contracted pupil ; rigidity of the muscles of the back; head bent backwards ; convulsive action, and death. In some cases the symptoms were marked with violence from the commencement, and in others the disease was so slight as to require little less than the domestic prescription of families.

This disease, although usually classed among fevers of the continued type, yet had its alternate periods—a remission in the morning, and a still more distinct exacerbation in the afternoon. The duration of the disease was various, from five to twenty days, its violence generally expending itself during the first twelve days. Not a few of the fatal cases were carried off within this period, and some so early as the second, third, and fourth days from the first attack. With the increase of temperature in the month of June, the disease became more unmanageable and fatal. This held good throughout July and August, the disease increasing both as to numbers and mortality, as we approached the tropical heat of summer. The thermometer ranged frequently above 90 deg., and occasionally rising to 96 deg. in the shade, with southerly winds and dry weather. Vegetation suffered severely, the grass of the fields was burned up, and the average crop of corn was much diminished from want of rain. The disease now spread over several sections of the surrounding country, but with comparative mildness. After passing the autumnal equinox, inflammation and swelling of the tonsils became more severe, and as the cold weather of the latter end of autumn set in, this symptom continued to increase.

The first premonitory signs of the disease now were hoarseness, difficulty of deglutition, and inabili-

ty of articulation. Severe and active inflammation of the throat, great enlargement of the tonsils, and high febrile action of the general system, of a distinctly inflammatory type. In short, all the characteristic symptoms of cynanche tonsillaris were well marked. A great many adults now became affected with the disease, mostly under thirty years of age, and females were more liable than males. No fatal case has come to my knowledge among adults. In them the cuticular eruption was much less distinctly marked, and most visible on the legs and arms. The extremities were slightly swollen and red, as if from exposure to a cold frosty wind, exhibiting a high degree of vascularity all over the cutis. In a large majority of cases, as well in those that terminated fatally as in those which recovered, the cutaneous eruption exhibited very different appearances. The only permanent feature was the scarlet color of the skin. In some we had a papular, and in others a miliary eruption, giving rise at one time to the report that measles had broke out among us, and at another that the smallpox returned. In some there were a number of red circular spots over different parts of the body, assuming a livid appearance previous to death, and a mahogany color afterwards. This, with the ulceration of the tonsils, which frequently took place, gave rise to the idea that the disease occasionally assumed a putrid character. The glands of the neck frequently swelled and suppurated, particularly in adults, after the cold season set in. In children, swelling of the parotid glands was a common symptom, but suppuration rare. Pneumonic affections were produced in many cases during the cold weather, and several children were cut off from this cause. But of all other causes of death, cerebral affections were the most numerous; congestion of the brain, inflammation of its meninges, terminating in many cases in effusion. In no case was there any post-mortem examination; in few cases was it asked, and in those few not permitted.

With regard to the contagious or non-contagious nature of this epidemic, the usual process of reasoning, substantiated by facts, might be adduced on either side. One child in a family caught the disease, and all the others took it in succession. On the contrary, one or more in a family took it, and the others, intermingling with them in every possible way, escaped. Hundreds took the disease who were not within reach of any one of the affected. Persons visiting their relations ill of the disease, returned home and took it—others under similar circumstances had it not. My own opinion is that it was not contagious.

The disease was engendered in, and propagated by the atmosphere, and neither transferred nor transferable from one individual to another. What constitutes that particular state of the atmospherical fluid, capable of giving origin to this particular disease, we cannot say,—all we know are its effects. Our best constructed eudiometers throw but little light on this subject. Numbers becoming affected in succession in any particular family or neighborhood, is only proof of similarity of exposure to the original exciting causes of the disease, and susceptibility of constitution to be acted on by these causes.

During the months of September and October the weather remained dry and warm; in November we

had some rains, with south-easterly winds, and warm weather for the season. December set in with rains, but we had little like winter weather until the latter end of the month. Early in January the winds veered about to the north and north-west, the thermometer sank rapidly to below the freezing point, in a few days it fell to seven degrees below zero. Towards the middle of the month we had a shift of wind to the north-east, with the heaviest fall of snow that has been experienced for a number of years; January 20th, it was from two and a half to three feet deep on the level, the thermometer at and below zero, with the wind at north-west. The permanently cold weather gave the first check to the disease. Numbers of adults now laboring under cynanche tonsillaris, with a high degree of inflammatory fever.

The treatment consisted, in the first stages of the disease, in the detraction of blood either generally or locally, or both, the evacuation of the primæ viæ by emetics and purgatives, with the cold affusion, cold bath, or sponging the surface of the body with cold water and acetic acid.

In many cases during the summer months, such was the state of apparent debility before medical advice was required, that the utility of general bleeding was doubtful. In these cases the application of leeches to the head and neck were of signal service. With this useful animal we were but scantily supplied, and I do believe that many lives were sacrificed, not only from a want of them, but for want of a general knowledge of their utility.

After bleeding, the use of as much of the sol. tart. antimonii as would produce an emetic effect, and the cold applications, were recommended, followed by purgatives of the submur. hydrargyri in the younger children; and in the elder, in combination with some of the vegetable purgatives or neutral salts. Soda water was given for drink, and the temperature of the surface kept down by continued sponging. The head was ordered to be shaved, or the hair very closely cut, and kept constantly covered with a single fold of linen wet with acetic acid and ice-cold water. In many cases the fond affections of a mother for the golden locks of her darling, placed an insuperable barrier to this part of the treatment, and ultimately endangered, if not sacrificed, the life of her offspring. In several cases there was a tendency to diarrhœa, with fetid evacuations: purgatives were as necessary in this class of patients as when the bowels were torpid; submur. hydr. combined with pulv. rhei was used generally. If the affection of the throat was slight, an embrocation of equal parts of spt. terebinth., aq. ammoniac, and ol. olivar., was recommended; if severe, a blister was applied immediately. Inhaling the steam of warm water and acetic acid was also advised. A diaphoretic, at bed-time, of pulv. ipecac. et opii, soothed the patient to rest, and procured a relaxation of the exhalant vessels on the surface, which moderated the febrile action. The mouth and fauces were directed to be washed or gargled with the sol. sulph. aluminis, and a few drops of aromat. sulph. acid. On the first symptoms indicating the approach of coma, a blister was applied to the head or the nape of the neck, extending along the spine, or both; the lower extremities immersed in warm water, and the pulv. antim. c. phos. calcis, or the tart. antim., combined

with nit. potassæ, given internally. Enemata were of signal service in evacuating the lower bowels and moderating the febrile action. Some practitioners, led away by the theories of the older authors, and parents by prejudices ascribable perhaps to the same source, in some cases imagined the disease to assume a putrid tendency, and exhibited, during the violence of the excitement, wine, cort. cinchonæ, and yeast. To say the least of this practice, it was prescribed for a phantom, and exhibiting a poison.

John Burns, C.M., Regius Professor of Surgery in the University of Glasgow, notwithstanding all his practical acumen and extensive experience, both in his public lectures and in his writings, has inculcated the idea that scarlatina is a contagious disease, (vide Principles of Midwifery, page 542.) I have seen it prevail extensively in Europe in the most crowded populations, and I have seen it here, and must confess I never saw anything to warrant such an opinion. The numbers which have been cut off in this epidemic must be considerable, but as no records are kept, we can give no account of the amount. Recoveries were often lingering; in many cases the sulphate of quinine acted as a valuable tonic, in restoring to an enfeebled frame the wonted vigor of health. — *Amer. Journ. of the Med. Sciences.*

IV.

INTERESTING CASE OF CROUP.

To the Editor of the Boston Med. and Surg. Journal.

Sir,—Believing that the following case of croup, treated with opiates and antispasmodics, lately recommended in your Journal as practised by Mr. Kemble, may give more confidence to the plan, and induce others to make a trial of it, who have been disappointed in the usual remedies in such cases, I offer it for insertion in your Journal.

A son of Mr. P., of Roxbury, aged 3 years, remarkably fat and plethoric, was attacked with croup early on Thursday morning, Jan. 14th. An emetic was administered, and followed by 10 grs. of calomel, and the warm bath. Partial relief was obtained through the day, but at night the respiration became worse, and continued without improvement in the morning. 15th. The breathing was now constantly stridulous; heaving of the chest; pulse full and frequent, with profuse perspiration. I commenced with one grain of calomel and one of Dover's powder, alternately every hour, with a teaspoonful of the mixture recommended by Mr. Kemble, which contains twenty drops of laudanum and two drachms of valerian in two ounces of Syrup of Squills. This treatment was continued through the day and night: a blister was also applied to the throat. 16th. No amendment: the case was now considered hopeless; the lungs and trachea were obstructed with mucus, and the peculiar croupy sound constantly present in the respiration. As the mixture was not retained on the stomach, it was omitted, and the calomel and Dover's powder continued every hour. 17th. The opium has produced continued sleep; there is less whistling in the respiration, and occasionally he is entirely free in his breathing, but the cough retains the same peculiarity so indicative of the disease. 18th. Entire relief; respiration free and easy; the cough, howe-

ver, remained sharp and dry for several days, and then disappeared.

I was particularly struck with the success in this case, from having lost a child with croup in the same family, and of the same age, three years before, who was not attacked in a more violent manner. The treatment was then commenced by emetics, and a free bleeding from the jugular and by leeches, and the continued exhibition of calomel *without opium ;* the effect of which was to prostrate the vital powers, and to deprive the patient of the assistance of those functions which tend to support life. The inference was irresistible, that the success in the present case was to be attributed to the difference in the treatment.

Yours, &c.

S. D. Townsend.

Boston, May, 1831.

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BOSTON, MAY 24, 1831.

THE TREATMENT OF CROUP.

Time immemorial the Croup has been treated antiphlogistically—time immemorial it has been an exceedingly fatal malady. In proportion to the number of cases, it has surpassed in fatality every other disease of infancy or childhood. To the truth of this fact, the observation of the faculty in all countries, and the sad recollection of many parents, and their still sadder dread of, and despondency on the approach of the disease, bear full and frequent testimony.

Under these circumstances, an English surgeon, by the name of Kemble, was led to believe that the established pathology and consequent principles of treatment of this disease were erroneous ; and, after much scrutiny, was enabled, as he thought, to detect the error. Placed in a situation which offered unusual opportunities for testing the truth of his hypothesis, he gave it an ample trial, and became convinced, by the best of all reasons, of its correctness. Living in a district where the croup is unusually prevalent, and, from his success in treating it, having seen more cases than commonly occur in the practice of one person, Mr. Kemble is still enabled to say that he has scarcely seen a fatal case since his method of cure has been adopted, nor heard of one in the practice of other medical men who have followed it.

About a year ago, we published in this Journal a detailed account of the views of Mr. K., and it is therefore unnecessary to repeat it here : suffice it to say that he regards the disease as *spasmodic ;* never bleeds or blisters his patients, but treats them with opium, valerian, &c., as described in this Journal, vol. 3, p. 25.

Since our publication of this account, many of our frieuds have adopted the same plan, and, so far as we can learn, with uniform success. One of these cases, treated by Dr. Ware, we gave to the profession in our last volume ; and the particular attention of the reader is now solicited to that of Dr. Townsend, published to-day. Dr. T., besides saving the life of his little patient, will doubtless, by publishing his case, be the means of preserving

the lives of many more. Is it not as solemn and imperious a duty for a physician to make known to the faculty cases illustrative of the efficacy of particular modes of practice, as it is of any man to stretch forth his hand, when he has the power, to save a fellow-being from drowning, or rescue him from the flames?

HUNGER AND THIRST.

THAT the sensations of hunger and thirst form a most wise and benevolent provision of nature, and that their final cause is to secure to the system its proper supply of nourishment, there can be no doubt. The immediate or proximate cause of these sensations, or why inanition should so affect the gastric nerves as to produce pain, is a point more difficult to determine. By some, hunger has been attributed to the collapse of the stomach, and the contact of its internal surfaces. Others have supposed that a spasmodic contraction of the organ took place; and others that the generation of some acid produced this sensation. These explanations are evidently too loose and hypothetical to afford any satisfaction. The discovery of the gastric fluid, and the examination of its properties, certainly furnish the most plausible mode of accounting for hunger. That such a fluid is secreted by the stomach, and that it possesses very active properties, is proved,—1. By the power which this organ possesses to dissolve the hardest substances, such as ivory, stone, and iron; and this, not only in animals who feed on such discordant diet, but even in men, who, from depraved appetite, or for show, have chosen to try such experiments on themselves. 2. Because this power is, to a considerable extent, independent of the mechanical force of the organ. Tin cases, inclosing pieces of bone, have been introduced into the stomach of a buzzard; and on removing them, the bones have been found, to a quarter or less extent, dissolved by the gastric fluid. 3. This fluid has been obtained out of the body, and in this state has been found to exhibit decided antiputrescent and stimulant properties. 4. Mr. Hunter satisfied himself, by inspecting the stomach of men and animals after sudden death, that the organ is, in these circumstancas, acted on and corroded by the gastric juice—being, in fact, subjected to the process of digestion.

From these facts and experiments, it seems not extravagant to infer, that this fluid, when secreted by the empty stomach, may exert sufficient influence on the nerves of this organ to produce a distinct sensation, and even to act upon its texture, if no aliment be furnished to supply the demand. There is, however, a more direct proof that such action occurs, derived from an experiment of Dr. Wilson Philip. In this case an individual fasted for twenty-four hours, and at the end of that time, instead of taking food, swallowed an emetic. A fluid similar to the gastric juice was thrown up, and the sensation of hunger immediately ceased. Dr. Philip seems to consider this a conclusive experiment in favor of the influence of this secretion; and it is not easy to deny the fairness of the

inference. It has been said, indeed, that nausea produces a similar effect without the action of vomiting. This may be reconciled with the theory, by supposing the secretions of the stomach to be increased in quantity, and the fluid in question to be thus diluted. Water, though it furnish no substance on which the gastric juice may exert its power, will yet abate the sense of hunger; and this effect may probably happen in the same manner. It has also been urged, as an argument against the action of the gastric fluid, that mental emotion will banish the sensation of hunger, independently of the removal of any fluid from the stomach. The effect of sudden joy or grief in producing this effect, is well known. He must possess a disposition truly stoical, who, after hearing of the death of a friend, or even after welcoming one home who had long been absent, can sit down and finish a meal with undiminished appetite. Facts of this sort, tending to show that the passions exert a direct control over this sensation, are abundantly numerous. They are, however, by no means conclusive against the gastric fluid as its proximate cause. To reconcile them with this hypothesis, it is only necessary to admit that the sense of pain may be relieved by strong mental excitement, independent of the removal of its physical cause; and of this, such abundant proofs exist in the animal economy, that it is scarce necessary to cite them.

It deserves our notice, that where appetite has been removed by the means just alluded to, the powers of the stomach are impaired in a corresponding degree; for if food be taken into the organ when thus affected, it remains there undigested, and produces a feeling of oppression and surfeit. We explain this by saying that the nervous energy is transferred elsewhere; an expression not very definite, but which implies that certain processes are incompatible, and cannot well go on in the system at one time. The truth of this principle is manifested by various phenomena. When a meal has been interrupted for fifteen or twenty minutes, we find, on returning to it, that the appetite has disappeared; a fact which may be owing either to the change in the gastric fluid by the food already taken, or to the circumstance that other processes have commenced inconsistent with the primary action of the stomach on the food. A more unequivocal instance of this concentration of nervous energy, is found in the process of digestion after a full meal, during which the skin is cold, the body sluggish, and the mind unfitted for strong exertion; so that, in persons of a feeble constitution, a few moments of repose are generally indispensable.

Besides the healthy hunger, which can be gratified by an infinite variety of sapid and digestible substances, there are numerous kinds of morbid craving, which demand particular articles of diet, and, in many instances, substances wholly indigestible. It is to this last kind of appetite that the epithet morbid is commonly restricted, though, perhaps, strictly speaking, a healthy ap-

petite is that which dictates no choice among substances possessing sapidity, and able to afford nutriment. In civilized society, however, our appetites seldom possess this primitive simplicity; it seems to be the joint portion of the savage, who knows no distinctions, and of the philosopher, whose mind, engaged in higher contemplations, has learned to disregard them. While appetite, however, is confined within the limit of digestible articles, we are content to call it healthy, retaining the epithet morbid for those remarkable aberrations in which substances are ardently desired which are incapable of contributing to the nourishment of the system. Whether the varieties in taste for food depends on any corresponding difference in the secretions of the stomach, cannot with any confidence be determined. That their final cause is the same with that of appetite in general, namely, that the stomach may have furnished to it the articles best suited to its condition, there can be no doubt. Even in regard to morbid appetite, there are some singular facts which manifest that these strange propensities are not without their use. Thus, a fondness for chalk has often been observed to accompany acidity of stomach, which required the use of absorbents. A custom is well known to exist in many parts of South America, known by the familiar name of dirt-eating. It is very fully described by the celebrated Humboldt, who attributes it to a disordered state of the digestive organs. The same affection exists among the blacks of Jamaica, where it is known by the name of *mal d'estomac.* We observe in a late paper in the Edinburgh Journal, by Dr. Hancock, of Demerara, that a similar appetite exists among the slaves in that district. The earth which is devoured with so much avidity, is of a clayey or argillaceous character, and of course calculated to absorb the acids generated in the stomach. Dr. H. observes that where this indulgence has been prohibited from an apprehension of its injurious effect, the men, instead of being rendered more healthy by the privation, have become emaciated, and suffered dreadfully from colic; so that it was necessary to permit them to return to its use. There is no doubt, therefore, that, in these cases, an excess of acid exists in the organ, creating a demand for an absorbent; and that by some sympathy, the nature of which we shall in vain attempt to explain, the appetite is made to act the part of interpreter to the digestive system, and to suggest to the mind its wants and necessities.

Of the immediate cause of thirst, we know even less than of that which produces the sensation of hunger. We are apt to refer it, when felt, to the dryness of the mouth and fauces; but this state of the parts will occur without producing the sensation, and the feeling is not always accompanied by the presence of these symptoms. Saline substances, it is well known, always produce thirst. Their action in this way is not well understood; but there can be little doubt that, by exciting the secretions of the alimentary canal and kidneys, they produce a demand in the system

for new supplies of fluid, which forms the remote cause of the thirst they occasion. As respects saline cathartics, it is well known that their operation is accompanied by copious discharges of fluid; and the sensation of thirst will seldom be found to follow, unless an evacuation, in one or other of the modes alluded to, has actually occurred. The sensations of hunger and thirst are, to a certain extent, incompatible, though not to the degree which is stated by some authors; it is certain, however, that one or the other always predominates. The sensation of thirst, as well as that of hunger, is materially influenced by mental emotion; the effect of the exciting passions, however, which deaden the latter sensation, is to stimulate and augment the former. Violent anger is always accompanied with thirst; and, on the other hand, it has been remarked that, under the influence of this sensation, all wild beasts and venomous reptiles become more ferocious. Some orders of animals, as mice, quails, and parrots, do not require liquid; and the same fact has occurred, as a rare anomaly, in the human species.

New Analysis of Swaim's Panacea.—The Editor of the American Journal has received an account, from Dr. Rose, of Philadelphia, of an analysis made by him of Swaim's Panacea, in the laboratory and under the superintendence of Professor Hare. In this specimen, both *mercury* and *arsenic* were discovered. The latter article has never before been sought for, we believe, in this celebrated nostrum.

The communication of Dr. Rose, says the American Journal, is accompanied with several affidavits made for the purpose of showing that the matter analyzed was the remains of a bottle obtained from Swaim, by a man named James Hill, for the cure of an ulcer on his leg; that the said James Hill, on the third day after commencing to use the medicine, four wineglassfuls only having been taken, died with vomiting of blood; that the deceased, after taking the medicine, complained that it burned him to the heart; and that the remainder of the contents of the bottle were carefully preserved by his friends, until given for analysis.

Calomel.—Since the discovery of calomel, that article has been reformed by at least a score of successive appellations. In the figurative language of alchemy, it was known by the names of draco mitigatus, aquila alba, manna metallorum, &c. As chemistry grew somewhat more definite as a science, this substance became mercurius dulcis, and mercurius dulcis sublimatus. Under the regime of Lavoisier and his contemporaries, it was a muriate and a submuriate; and after Davy and Gay Lussac, became a chloride and a proto-chloruret. Lastly, as if the *gentleness* of its character was to produce a reconciliation of extremes, the *mitigated* dragon of antiquity has become a *mild* chloride of mercury.

Our notice of Dr. Bardsley's experiments with the new medicines, will be resumed next week.

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